



**University of
Zurich** ^{UZH}

Department of Economics – Neuroeconomics Seminar

November 17, 2022 - 16:30 – 17:30

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Memory, memorability, and decision making

Decisions arise through a process of deliberation comprising evaluation of evidence and consideration of the values associated with options. But what constitutes the internal evidence brought to bear on decisions? For decisions about a perceptual stimulus, most of the evidence derives from information external to the organism. For decisions based on preferences, the evidence must derive from internal processes. The central hypothesis guiding my work is that internal evidence is derived from relational memory mechanisms that rely on the hippocampus. In this talk, I will present a series of studies that draw on behavior, neuroimaging and computational modeling in healthy individuals and patients with hippocampal damage. The findings show that the hippocampus is involved in, and necessary for, deliberation during value-based decisions. Placing hippocampal memory at the input of a decision process generates novel predictions. For example, We predicted that choice options that are more memorable are chosen more often. Our findings lay the foundation for a mechanistic understanding of how memory guides decision making and have implications for the way we think about the function of memory.